



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**University Village, 91 Cadastral Zone, Nnamdi Azikwe Expressway, Jabi, Abuja**  
**FACULTY OF SCIENCES**  
**COMPUTER SCIENCE DEPARTMENT**  
**2021\_2 EXAMINATIONS**

**CIT 463** – Introduction to Multimedia Technology **Credit: 3 units**

**TIME ALLOWED:** 2½ Hours

**INSTRUCTION:** Answer Question 1 and any other FOUR (4) Questions

**QUESTION 1**

- a) Describe the term “Multimedia” in a Computer Environment” (3 marks)
- b) With the aid of diagram discuss Star Topology (4 marks)
- c) Summarize the features of Digital Audio (3 marks)
- d) What makes color management Subjective and Technical? (2 marks)
- e) Discuss the advantages of the Digital Television over the Analogue Television (3 marks)
- f) Highlight the types of dedicated Video conferencing Devices (3 marks)
- g) Outline two types of circuit in Asynchronous transfer Mode (ATM) network (2 marks)
- h) State at least four examples of Application Software (2 marks)

**QUESTION 2**

- a) Briefly describe Quality of Service (QoS) (3 marks)
- b) Distinguish between Digital Audio and Analogue Audio (2 marks)
- c) Highlight at least two (2) types of Authoring tools and summarize their usage (3 marks)
- d) Discuss the functions of Computer Telephony Integration (3 marks)
- e) Outline the compression types commonly used in video compression (1 marks)

**QUESTION 3**

- a) Discuss the processes to convert Analogue Audio to Digital Audio (2 marks)
- b) Summarize the benefits and challenges of using Color (4 marks)
- c) State the difference between Differentiated Services and Integrated Services (2 marks)
- d) Describe at least three (3) ways to create digital image (3 marks)
- e) Mention two unique ways to specify color (1 marks)

**QUESTION 4**

- a) Identify the limitation of psychoacoustics model. (2 marks)
- b) Differentiate between Wider Area Network (WAN) and Local Area Network (LAN) (2 marks)
- c) Explain the term “Pixel” as used in multimedia technology. (3 marks)
- d) Outline the features of Image and digital image (4 marks)
- e) Explain the term “Chromatic” (1 marks)

**QUESTION 5**

- a) Briefly explain the term “Peer-To-Peer Architecture” (3 marks)

- b) Highlight the characteristics of Metropolitan Area Network (MAN) *(2 marks)*
- c) Differentiate between Real-time Transfer Protocol and Session Control Protocol *(2 marks)*
- d) Describe Digital Subscriber Line *(3 marks)*
- e) What are the advantages and disadvantages of the Internet Telephony? *(2 marks)*

**QUESTION 6**

- a) Briefly explain the concept of Psychoacoustics *(3 marks)*
- b) What makes Dedicated server better than Personal computer in a network server *(2 marks)*
- c) Differentiate between Symmetric Digital Subscriber Line and Asymmetric Digital Subscriber Line *(2 marks)*
- d) Mention any four (4) components required for a Videoconferencing System *(2 marks)*
- e) Outline the major characteristics of MBONE *(2 marks)*
- f) Mention at least two applications of multicasting *(1 marks)*